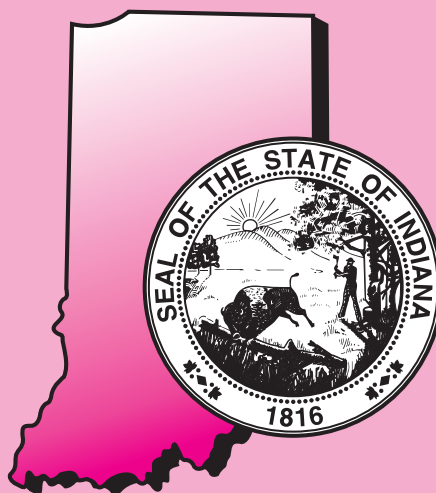


# ***ISTEP+***

Indiana Statewide Testing for Educational Progress

## **Gridded-Response Practice Test**



Indiana Department of Education

Student Name \_\_\_\_\_



Developed and published under contract with State of Indiana Department of Education by CTB/McGraw-Hill LLC, a subsidiary of The McGraw-Hill Companies, Inc., 20 Ryan Ranch Road, Monterey, California 93940-5703. Copyright © 2001 by State of Indiana Department of Education. All rights reserved. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of State of Indiana Department of Education.

# Gridded-Response Practice Problems

Gridded-response problems are included in the Mathematics test. This type of problem will require you to fill in your answers to mathematics problems on response grids. Answers to the problems may be whole numbers, decimals, or fractions. The response grids may be completed in several ways. Directions on how to complete the response grids are given below.

## Parts of a Response Grid

An example of a response grid is shown below. All response grids will have the parts indicated.

					} answer boxes
	/	/	/		
•	•	•	•	•	} decimal point
0	0	0	0	0	
1	1	1	1	1	
2	2	2	2	2	
3	3	3	3	3	
4	4	4	4	4	
5	5	5	5	5	
6	6	6	6	6	
7	7	7	7	7	
8	8	8	8	8	
9	9	9	9	9	

## Directions

1. Work the problem and find an answer.
2. Write your answer in the answer boxes of the grid. Be sure to
  - write your answer in the answer boxes without placing spaces between the digits or symbols
  - write the decimal point or fraction bar in the answer box if it is part of the answer

- Below are examples of how the fraction  $\frac{2}{5}$  and the decimal 4.9 can be filled in on response grids.

	2	/	5	
	①	●	①	
●	●	●	●	●
①	①	①	①	①
①	①	①	①	①
②	●	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	●	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

	4	.	9	
	0	0	0	
●	●	●	●	●
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	●	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	●	9





This symbol will appear in your test books before sections of gridded-response problems. Below, you will practice filling in some response grids.

- 1** On the response grid to the right, complete the following steps.

- write 4,087 in the answer boxes (you do NOT need to place the comma in the response grid)
- fill in the appropriate bubble under each number you wrote in the answer boxes

	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

- 2** On the response grid to the right, complete the following steps.

- write 0.635 in the answer boxes
- fill in the appropriate bubble under each number and symbol you wrote in the answer boxes

	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

- 3** All mixed numbers, such as  $3\frac{3}{4}$ , MUST be entered on the response grid as either a decimal or as an improper fraction. On the response grid to the right, complete the following steps.

- change  $3\frac{3}{4}$  to either a decimal (3.75) or an improper fraction ( $\frac{15}{4}$ )
- write your decimal or improper fraction in the answer boxes
- fill in the appropriate bubble under each number and symbol you wrote in the answer boxes using / for a fraction bar or • for a decimal point

	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9



Below are some sample gridded-response problems. Read each one carefully, and then find the answer to the problem. Fill in the answer on the response grid to the right of the problem. After you complete the sample problems, we will compare your response grids to the answer key.

- 1** A bicycle that costs \$320 is on sale this week for 20% off the regular price. How much can be saved by purchasing the bicycle this week?

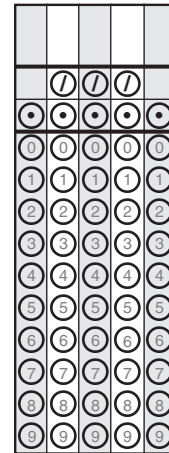
	1	1	1	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

- 2** The scale on a blueprint of a house is 1 inch = 5 feet. On the blueprint, the length of the house is 12.5 inches. What is the length, in feet, of the actual house?

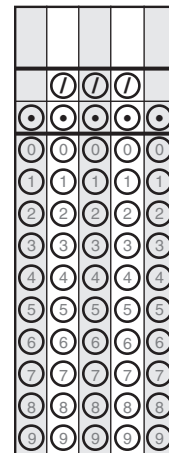
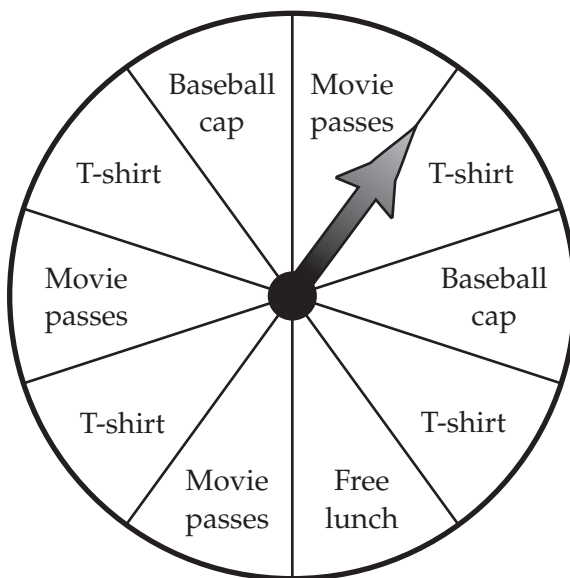
	1	1	1	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

**Go On** 

**3** Evaluate:  $8(26 + 5) + 4 \div 8 \times 6$



**4** Look at the spinner below.



Each section of the spinner is equal in size. What is the probability that the spinner will stop on a T-shirt or baseball cap? Write the answer as a fraction or a decimal.

The following answer key shows some of the ways that the answers to the sample problems could be filled in on the response grids. Compare your response grids on pages 4 and 5 with the answer key.

- 1** A bicycle that costs \$320 is on sale this week for 20% off the regular price.  
How much can be saved by purchasing the bicycle this week?

The correct answer to this problem is \$64. The response grids below show some of the ways this answer could be correctly filled in. (Remember: symbols such as dollar signs cannot be used in the response grid.)

			6	4
	1	1	1	
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	●
5	5	5	5	5
6	6	6	●	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

OR

		6	4	
	1	1	1	
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	●	4
5	5	5	5	5
6	6	●	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

OR

6	4			
	1	1	1	
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	●	4	4	4
5	5	5	5	5
●	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9



2

The scale on a blueprint of a house is 1 inch = 5 feet. On the blueprint, the length of the house is 12.5 inches. What is the length, in feet, of the actual house?

The correct answer to this problem is 62.5 feet (or  $125/2$ ). The response grids below show some of the ways this answer could be correctly filled in. It is important to remember that any mixed number such as  $62\frac{1}{2}$  MUST BE entered as a decimal or an improper fraction.

	6	2	.	5
	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	•	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	•
6	•	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

OR

1	2	5	/	2
	/	/	•	
•	•	•	•	•
0	0	0	0	0
•	1	1	1	1
2	•	2	2	•
3	3	3	3	3
4	4	4	4	4
5	5	•	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

3

Evaluate:  $8(26 + 5) + 4 \div 8 \times 6$

The correct answer to this problem is 251. The response grids below show some of the ways these answers could be correctly filled in.

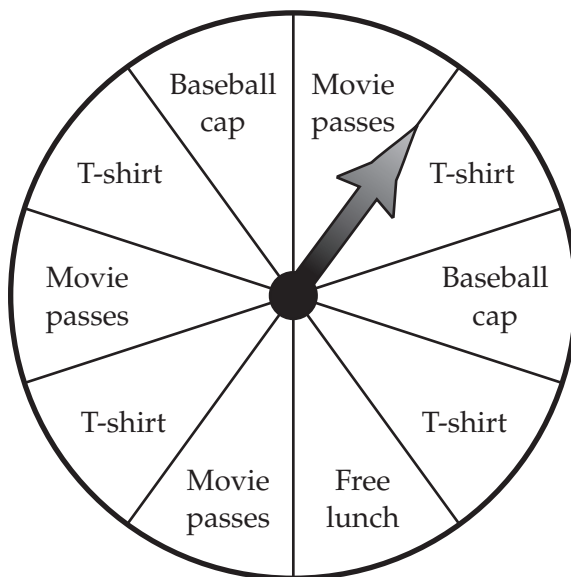
		2	5	1
	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	•
2	2	•	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	•	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

OR

	2	5	1	
	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	•	1
2	•	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	•	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

Go On 

**4** Look at the spinner below.



Each section of the spinner is equal in size. What is the probability that the spinner will stop on a T-shirt or baseball cap? Write the answer as a fraction or a decimal.

The correct answer to this problem is  $\frac{3}{5}$ . However, this answer may be expressed in different ways such as 0.6 and  $\frac{6}{10}$ . The response grids below show some of the ways these answers could be correctly filled in.

3	/	5		
	●	1	1	
○	○	○	○	○
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	●	3	3	3
4	4	4	4	4
5	5	●	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

OR

	0	.	6	
	1	1	1	
○	○	●	○	○
0	●	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	●	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

OR

	6	/	10	
	1	●	1	
○	○	○	○	○
0	0	0	0	●
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	●	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9



**DO  
NOT  
MARK  
ON THIS  
PAGE**

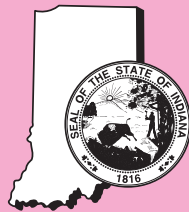
**DO  
NOT  
MARK  
ON THIS  
PAGE**

**DO  
NOT  
MARK  
ON THIS  
PAGE**

**DO  
NOT  
MARK  
ON THIS  
PAGE**

**DO  
NOT  
MARK  
ON THIS  
PAGE**

# Gridded-Response Practice Test



Indiana Department of Education